

SEQUENCE LISTING

<110> Consejo Superior de Investigaciones Científicas

<120> GENERATION OF SPECIFIC ADHESION IN GRAM-NEGATIVE BACTERIA BY MEANS OF FIXING IMMUNOGLOBULIN SINGLE DOMAINS ON THEIR SURFACE WITH AUTOTRANSPORTERS

<130> P1375PC

<150> ES P200400073

<151> 2004-01-14 (January 14, 2004)

<160> 10

<170> PatentIn version 3.1

<210> 1

<211> 5587

<212> DNA

<213> Artificial

<223> DNA sequence of plasmid pVamyβ

<400> 1						60
acccgacacc	atcgaatggc	gcaaaacctt	tcgcggtatg	gcatgatagc	gcccgggaaga	120
gagtcgaattc	agggtgggtga	atgtgaaacc	agtaacgtta	tacgatgtcg	cagagtatgc	180
cgggtgtctct	tatcagaccg	tttcccgct	gggtgaaccag	gccagccacg	tttctgcgaa	240
aacgcgggaa	aaagtgggaag	cggcgatggc	ggagctgaat	tacattccca	accgcgtggc	300
acaacaactg	gcgggcaaac	agtcgttgct	gattggcggt	gccacctcca	gtctggccct	360
gcacgcgcgcg	tcgcaaattg	tcgcggcgat	taaatctcgc	gccgatcaac	tgggtgccag	420
cgtgggtggtg	tcgatggtag	aacgaagcgg	cgtcgaagcc	tgtaaagcgg	cggtgcacaa	480
tcttctcgcg	caacgcgtca	gtgggctgat	cattaactat	ccgctggatg	accaggatgc	540
cattgctgtg	gaagctgcct	gcactaatgt	tccggcggtta	tttcttgatg	tctctgacca	600
gacacccatc	aacagtatta	ttttctccca	tgaagacggt	acgcgactgg	gcgtggagca	660
tctggtcgca	ttgggtcacc	agcaaatcgc	gctggttagcg	ggcccatata	gttctgtctc	720
ggcgcgctctg	cgtctggctg	gctggcataa	atatctcact	cgcaatcaaa	ttcagccgat	780
agcgggaacgg	gaaggcgact	ggagtgccat	gtccgggtttt	caacaaacca	tgcaaatgct	840
gaatgagggc	atcggttccca	ctgcgatgct	gggttgccaac	gatcagatgg	cgctgggcgc	900
aatgcgcgcc	attaccgagt	ccgggctgcg	cgttgggtgcg	gacatctcgg	tagtgggata	960
cgacgatacc	gaagacagct	catgttatat	cccgccgtta	accaccatca	aacaggattt	1020
tcgcctgctg	gggcaaaacca	gcgtggaccg	cttgctgcaa	ctctctcagg	gccaggcggt	1080
gaagggcaat	cagctgtttgc	ccgtctcact	ggtgaaaaga	aaaaccaccc	tggcgcccaa	1140
tacgcaaacc	gcctctcccc	gcgcgtttggc	cgattcatta	atgcagctgg	cacgacaggt	1200
ttccccgactg	gaaagcgggc	agtgaagcgg	acccgataaa	agcggcttcc	tgacaggagg	1260
ccgttttgtt	ttgcagccca	cctcaacgca	attaatgtga	gttagctcac	tcattaggca	1320
ccccaggctt	tacactttat	gcttccggct	cgtatgttgt	gtggaattgt	gagcggataa	1380
caatttcaca	caggaaacag	ctatgaccat	gattacgaat	ttctagataa	cgagggcaaa	1440
tcatgaaata	cctattgcct	acggcagccg	ctggattgtt	attactcgcg	gcccagccgg	1500
ccatggctca	ggtgcagctg	gtggagtctt	ggggaggctc	ggtgcaggct	ggggggtctc	1560
tgagactctc	ctgcacagcc	cctggattca	cctccaatag	ctgccgcatg	gactggtacc	1620
gccaggctgc	agggaaagcag	cgcgagtggg	tctcatctat	tagtactgat	ggtcgcacaa	1680
gctatgcaga	ctccgtgaag	ggccgattca	ccatctccaa	agacaaagcc	aaggacacgg	1740
tgtatctgca	aatgaacagc	ctgaaacctg	aggacacggc	catctattac	tgtgccgtga	1800
ggacgaatgg	gtatcggtccg	caatctcacg	aatttcgcta	ctggggccccg	gggacccagg	1860
tcaccgtctc	ctcagcggcc	gcggcgctcg	gggcccgaatt	cgtcgacggt	gcgccggtgc	1920
cgtatccgga	tcgcgtggaa	ccgatcgaca	attcagccgc	aattagtatg	gcaaattccac	1980
gtccaccaac	accgcgggtc	gctgcggccg	tattttcatt	ggatgattat	gatgcaaaag	2040
acaatagtga	atcatcaata	ggtaatttag	ctcgtgtaat	acctagaatg	ggaaggaggt	2100
taattaatga	ttatgaagaa	atccccttgg	aggagttaga	agatgaagcg	gaagaagaac	

gtcgccaagc	aacgcaattc	cactccaaaa	gtcgtaaccg	tagagctata	tcatacggaac	2160
catcatctga	tgaagatgca	tctgaatcgg	tttccacatc	agacaaacac	cctcaagata	2220
atacggaact	tcatgaaaaa	gttgagacgg	cgggtttaca	accaagagcc	gcgcagccgc	2280
gaacccaagc	cgccgcgcaa	gccgatgcag	tcagcaccaa	tactaactcg	gctttatctg	2340
acgcaatggc	aagcacgcaa	tctatcttgt	tggatacagg	tgcttactta	acacggcaca	2400
ttgcacaaaa	atcacgcgct	gatgccgaaa	aaaacagtg	ttggatgtca	aacaccgggt	2460
atggccgtga	ttatgcttcc	gcacaatatc	gccggtttag	ttcgaaacgc	acgcaaacac	2520
aaatcggc	tgaccgcagc	ttgtccgaaa	atatgcagat	aggcggagta	ttgacttact	2580
ctgacagtca	gcatactttt	gatcaggcgg	gcggcacaaa	tacttttgtg	caagccaacc	2640
tttatggtaa	gtattattta	aatgatgctt	ggtatgtggc	cggcgatatt	ggtgcgggca	2700
gcttgagaag	ccggttacaa	acgcagcaaa	aagcaaaact	taaccgaaca	agcatccaaa	2760
ccggccttac	tttgggcaat	acgctgaaaa	tcaatcaatt	cgagattgtc	cctagtgcgg	2820
gtatccgtta	cagccgcctg	tcactctgcag	attacaagtt	gggtgacgac	agtgttaaa	2880
taagttctat	ggcagtgaaa	acactaacgg	ccggactgga	ttttgcttat	cggtttaaa	2940
tcggcaacct	taccgtaaaa	cccttgttat	ctgcagctta	ctttgccaat	tatggcaaa	3000
gcgccgtgaa	tgtgggcggt	aaatccttcg	cctataaagc	agataatcaa	cagcaatatt	3060
cagcaggcgt	cgcgttactg	taccgtaatg	ttacattaaa	cgtaaatggc	agtattacaa	3120
aaggaaaaa	attggaaaaa	caaaaatccg	gacaaattaa	aatacagatt	cgtttctaaa	3180
ataccaaatt	catagcaaaa	taaaatgccg	tctgaactca	agcttgacct	gtgaagtga	3240
aaatggcgca	cattgtgcga	catttttttt	gtctgccgtt	taccgctact	gcgtcacgga	3300
tccccacgcg	ccctgtagcg	gcgcattaac	cgcggcgggt	gtgggtggtt	gcgcagcgt	3360
gaccgctaca	cttgccagcg	ccctagcgcc	cgtccctttc	gctttcttcc	cttccctttc	3420
cgccacgttc	gccggctttc	ccgtcaagc	tctaaatcgg	ggcatccctt	tagggttccg	3480
atltagtgt	ttacggcacc	tcgaccccaa	aaaacttgat	tagggtgatg	gttcacgtag	3540
tgggccatcg	ccctgataga	cggtttttcg	ccctttgacg	ttggagtcca	cgttctttta	3600
tagtggtact	ttgttccaaa	ctggaacaac	actcaaccct	atctcgggtc	attcttttga	3660
tttataaggg	attttgccga	tttcggccta	ttgggttaaaa	aatgagctga	tttaacaaaa	3720
atltaacgcg	aattttaaca	aaatattaac	gtttacaatt	tcagggtggc	cttttcgggg	3780
aaatgtgcgc	ggaaccccta	tttgtttatt	tttctaaata	cattcaaata	tgtatccgct	3840
catgtcgaga	cgttgggtga	ggttccaaact	ttcaccataa	tgaaataaga	tcactaccgg	3900
gcgtattttt	tgagttatcg	agatttttcag	gagctaagga	agctaaaatg	gagaaaaaaa	3960
tcactggata	taccaccggt	gatatatccc	aatggcatcg	taaagaacat	tttgaggcat	4020
ttcagtcagt	tgctcaatgt	acctataacc	agaccgttca	gctggatatt	acggcctttt	4080
taaagaccgt	aaagaaaaat	aagcacaagt	tttatccggc	ctttattcac	attcttgccc	4140
gcctgatgaa	tgctcatccg	gagttccgta	tggcaatgaa	agacggtgag	ctggtgatat	4200
gggatagtgt	tcacccttgt	tacaccgttt	tccatgagca	aactgaaacg	ttttcatcgc	4260
tctggagtga	ataccacgac	gatttcggcg	agttttctaca	catatatctc	caagatgtgg	4320
cgtgttacgg	tgaaaaacct	gcctattttc	ctaaagggtt	tattgagaat	atgtttttcg	4380
tctcagccaa	tcctggggtg	agtttcacca	gttttgattt	aaacgtggcc	aatatggaca	4440
acttcttcgc	ccccgttttc	accatgggca	aatattatac	gcaaggcgac	aagggtctga	4500
tgccgctggc	gattcagggt	catcatgccg	tctgtgatgg	cttccatgtc	ggcagaatgc	4560
ttaatgaatt	acaacagtac	tgcatgaggt	ggcaggggcg	ggcgtaattt	ttttaaggca	4620
gttattgggt	cccttaaacc	cctgggtgcta	cgcctgaata	agtgataata	agcggatgaa	4680
tggcagaaat	tcgaaagcaa	attcgaccgg	gtcgtcggtt	cagggcgagg	tcgttaaata	4740
gccgcttatg	tctattgctg	gtttaccggt	ttattgacta	ccggaagcag	tgtgaccgtg	4800
tgcttctcaa	atgcctgagg	ccagtttgct	caggctctcc	ccgtggagggt	aataattgct	4860
cgacatgacc	aaaatccctt	aacgtgagtt	ttcgttccac	tgagcgtcag	accccgtaga	4920
aaagatcaaa	ggatcttctt	gagatccttt	ttttctgcgc	gtaatctgct	gcttgcaaac	4980
aaaaaaaacca	ccgctaccag	cgggtggttg	tttgccggat	caagagctac	caactctttt	5040
tccgaaggta	actggcttca	gcagagcgca	gataccaaat	actgtccttc	tagtgtagcc	5100
gtagttaggc	caccacttca	agaactctgt	agcaccgcct	acatacctcg	ctctgcta	5160
cctgttacca	gtggctgctg	ccagtggcga	taagtcgtgt	cttaccgggt	tggactcaag	5220
acgatagtta	ccggataagg	cgcagcggtc	gggctgaacg	gggggttcgt	gcacacagcc	5280
cagcttggag	cgaacgacct	acaccgaact	gagataccta	cagcgtgagc	tatgagaaag	5340
cgccacgctt	cccgaaggga	gaaaggcgga	caggatatccg	gtaagcggca	gggtcggaac	5400
aggagagcgc	acgagggagc	ttccaggggg	aaacgcctgg	tatctttata	gtcctgtcgg	5460
gtttcgccac	ctctgacttg	agcgtcgatt	tttgtgatgc	tcgtcagggg	ggcggagcct	5520
atggaaaaac	gccagcaacg	cggccttttt	acggttcctg	gccttttgc	ggccttttgc	5580
tcacatg						5587

<210> 2
 <211> 5563
 <212> DNA
 <213> Artificial

<223> DNA sequence of plasmid pVLMB10 β

<400> 2

acccgacacc	atcgaatggc	gcaaaacctt	tcgcggtatg	gcatgatagc	gcccggaaga	60
gagtcaattc	aggggtggtga	atgtgaaacc	agtaacgtta	tacgatgtcg	cagagtatgc	120
cgggtgtctc	tatcagaccg	tttcccgcgt	ggtgaaccag	gccagccacg	tttctgcgaa	180
aacgcgggaa	aaagtggag	cggcgatggc	ggagctgaat	tacattccca	accgcgtggc	240
acaacaactg	gcggggcaaac	agtcgtttgct	gattggcggt	gccacctcca	gtctggccct	300
gcacgcgccg	tcgcaaattg	tcgcggcgat	taaatctcgc	gccgatcaac	tgggtgccag	360
cgtgggtggtg	tcgatggtag	aacgaagcgg	cgtcgaagcc	tgtaaagcgg	cgggtgcacaa	420
tcttctcgcg	caacgcgtca	gtgggctgat	cattaactat	ccgctggatg	accaggatgc	480
cattgctgtg	gaagctgcct	gcactaatgt	tccggcggtta	tttcttgatg	tctctgacca	540
gacacccatc	aacagtatta	ttttctccca	tgaagacggg	acgcgactgg	gcgtggagca	600
tctggtcgca	ttgggtcacc	agcaaatacgc	gctgttagcg	ggccatttaa	gttctgtctc	660
ggcgcgtctg	cgtctggctg	gctggcataa	atatctcact	cgcaatcaaa	ttcagccgat	720
agcggaaacg	gaaggcgact	ggagtggcat	gtccggtttt	caacaaacca	tgcaaatgct	780
gaatgagggc	atcgttccca	ctgcgatgct	ggttgccaac	gatcagatgg	cgtctgggcgc	840
aatgcgcgcc	attaccgagt	ccgggctcgc	cgttggtgcg	gacatctcgg	tagtgggata	900
cgacgatacc	gaagacagct	catgttatat	cccgcggtta	accaccatca	aacaggattt	960
tcgcctgctg	gggcaaacca	gcgtggaccg	cttgctgcaa	ctctctcagg	gccaggcggt	1020
gaagggcaat	cagctgttgc	ccgtctcact	ggtgaaaaga	aaaaccaccc	tggcgcccaa	1080
tacgcaaacc	gcctctcccc	gcgcgttggc	cgattcatta	atgcagctgg	cacgacaggt	1140
ttcccgaactg	gaaagcgggc	agtgcgcgtg	acccgataaa	agcggcttcc	tgacaggagg	1200
ccgttttgtt	ttgcagccca	cctcaacgca	attaatgtga	gttagctcac	tcataggca	1260
ccccaggctt	tacactttat	gcttccgcgt	cgtatgttgt	gtggaattgt	gagcgggataa	1320
caatttcaca	caggaaacag	ctatgaccat	gattacgaat	ttctagagga	gccttttttt	1380
tggagatttt	caacgtgaaa	aaattattat	tcgcaattcc	tttagtttgt	cctttctatt	1440
ctcacagtgc	acttgaaacg	acactcacgc	agtctccact	ctccctgtcc	gtcaccctctg	1500
gagagtcggc	ctccatctcc	tgcaggtata	gtcagagcct	cttccacagg	aattggaaaa	1560
cctgggtgga	ttggtacctg	cagaagccag	ggcagtcctc	acaagtcctg	atctatgcgg	1620
cttctattcg	ggcctccggc	gtccctgaca	ggttcagtgg	cagtgttcca	ggcacagatt	1680
ttacactgaa	aatcagcagg	gtggaggctg	aggatgttgg	ggtttattac	tgcatgcaag	1740
gtacacaccc	gtacactttt	ggccagggga	ccaagctgac	cgtcctagggt	gcggccgcgg	1800
cgtcgggggc	cgaattcgtc	gacggtgcgc	cggtgccgta	tccggatccg	ctggaaccga	1860
tcgacaattc	agccgcaatt	agtatggcaa	atccacgtcc	accaacaccg	cgggtcgctg	1920
cggccgtatt	ttcattggat	gattatgatg	caaaagacaa	tagtgaatca	tcaataggta	1980
atttagctcg	tgtaatacct	agaatgggaa	gggagttaat	taatgattat	gaagaaatcc	2040
ccttgaggga	gttggaagat	gaagcgggaag	aagaacgtcg	ccaagcaacg	caattccact	2100
ccaaaagtcg	taaccgtaga	gctatatcat	cggaaccatc	atctgatgaa	gatgcactctg	2160
aatcggtttc	cacatcagac	aaacaccctc	aagataatac	ggaacttcat	gaaaaagttg	2220
agacggcggg	tttacaacca	agagccgcgc	agccgcgaac	ccaagccgcc	gcgcaagccg	2280
atgcagtcag	caccaatact	aactcggctt	tatctgacgc	aatggcaagc	acgcaatcta	2340
tcttgttggg	tacaggtgct	tacttaacac	ggcacattgc	acaaaaatca	cgcgctgatg	2400
ccgaaaaaaaa	cagtgttttg	atgtcaaaca	ccggttatgg	ccgtgattat	gcttccgcac	2460
aatatcgccg	gttttagttcg	aaacgcacgc	aaacacaaat	cggcattgac	cgcagcttgt	2520
ccgaaaatat	gcagataggc	ggagtattga	cttactctga	cagtcagcat	acttttgatc	2580
aggcggggcg	caaaaatact	tttgtgcaag	ccaaccttta	tggttaagta	tattttaaatg	2640
atgcttggtg	tgtggccggc	gatattgggtg	cgggcagctt	gagaagccgg	ttacaaacgc	2700
agcaaaaagc	aaactttaac	cgaacaagca	tccaaaccgg	ccttactttg	ggcaatacgc	2760
tgaaaaatcaa	tcaattcgag	attgtcccta	gtgcgggtat	ccgttacagc	cgcctgtcat	2820
ctgcagatta	caagttgggt	gacgacagtg	ttaaagtaag	ttctatggca	gtgaaaacac	2880
taacggccgg	actggatttt	gcttatcggt	ttaaagtcgg	caaccttacc	gtaaaaccct	2940
tgttatctgc	agcttacttt	gccaattatg	gcaaaggcgg	cgtgaatgtg	ggcggtaaat	3000
ccttcgccta	taaagcagat	aatcaacagc	aatattcagc	aggcgtcgcg	ttactgtacc	3060

gtaatgttac	attaaacgta	aatggcagta	ttacaaaagg	aaaacaattg	gaaaaacaaa	3120
aatccggaca	aattaaaata	cagattcgtt	tctaaaatac	caaattcata	gcaaaaataaa	3180
atgccgtctg	aactcaagct	tgacctgtga	agtgaaaaaat	ggcgcacatt	gtgcgcacatt	3240
ttttttgtct	gccgtttacc	gctactgcgt	cacggatccc	cacgcgccct	gtagcggcgc	3300
attaagcgcg	gcgggtgtgg	tggttacgcg	cagcgtgacc	gctacacttg	ccagcgcctt	3360
agcgcgcgct	cctttcgctt	tcttcccttc	cctttctcgcc	acgttcgccg	gctttccccc	3420
tcaagctcta	aatcggggca	tcccttttagg	gttccgattt	agtgcctttac	ggcacctcga	3480
ccccaaaaaa	cttgatttagg	gtgatgggtc	acgtagtggg	ccatcgccct	gatagacggt	3540
ttttcgccct	ttgacgttgg	agtccacggt	ccttaataagt	ggactcctgt	tccaaactgg	3600
aacaacactc	aacccttatct	cgttctattc	ttttgattta	taagggattt	tgccgatttc	3660
ggcctatttg	ttaaaaaatg	agctgattta	acaaaaattt	aacgcgaatt	ttaacaaaat	3720
attaacgttt	acaatttcag	gtggcacttt	tcggggaaat	gtgcgcggaa	cccctatttg	3780
tttttttttc	taaatacatt	caaatatgta	tccgctcatg	tcgagacggt	gggtgaggtt	3840
ccaactttca	ccataatgaa	ataagatcac	taccgggcgt	attttttgag	ttatcgagat	3900
tttcaggagc	taaggaagct	aaaatggaga	aaaaaatcac	tggatatacc	accgttgata	3960
tatcccaatg	gcacgtgaaa	gaacattttg	aggcatttca	gtcagttgct	caatgtacct	4020
ataaccagac	cgttcagctg	gatattacgg	ccttttttaa	gaccgtaaaag	aaaaataagc	4080
acaagtttta	tccggccttt	attcacattc	ttgccgcctt	gatgaatgct	catccggagt	4140
tccgtatggc	aatgaaaagac	ggtgagctgg	tgatatggga	tagtgttcac	ccttgttaca	4200
ccgtttttcc	tgagcaaaact	gaaacgtttt	catcgctctg	gagtgaatac	cacgacgatt	4260
tccggcagtt	tctacacata	tattcgcaag	atgtggcgtg	ttacggtgaa	aacctggcct	4320
attttccctaa	aggggtttatt	gagaatatgt	ttttcgcttc	agccaatccc	tgggtgagtt	4380
tcaccagttt	tgattttaaac	gtggccaata	tggacaactt	cttcgcccc	gttttcacca	4440
tgggcaataa	ttatacgcaa	ggcgacaagg	tgctgatgcc	gctggcgatt	caggttcac	4500
atgccgtctg	tgatggcttc	catgtcggca	gaatgcttaa	tgaattacaa	cagtactgcg	4560
atgagtggca	gggcggggcg	taattttttt	aaggcagtta	ttggtgccct	taaacgcctg	4620
gtgctacgcc	tgaataagtg	ataataagcg	gatgaatggc	agaaattcga	aagcaaattc	4680
gacccggtcg	tcggttcagg	gcagggtcgt	taaatagccg	cttatgtcta	ttgctggttt	4740
accggtttat	tgactaccgg	aagcagtggt	accgtgtgct	tctcaaatgc	ctgaggccag	4800
tttgctcagg	ctctccccgt	ggaggttaata	attgctcgac	atgacaaaaa	tcccttaacg	4860
tgagttttcg	ttccactgag	cgtcagaccc	cgtagaaaag	atcaaaggat	cttcttgaga	4920
tccttttttt	ctgcgcgtaa	tctgctgctt	gcaaacaaaa	aaaccaccgc	taccagcggg	4980
ggttttgttt	ccggatcaag	agctaccaac	tcttttttcg	aaggtaactg	gcttcagcag	5040
agcgcagata	ccaaatactg	tccttctagt	gtagccgtag	ttaggccacc	acttcaagaa	5100
ctctgtagca	ccgcctacat	acctcgctct	gctaatacct	ttaccagtgg	ctgctgccag	5160
tggcgataag	tcgtgtctta	ccgggttgga	ctcaagacga	tagttaccgg	ataaggcgca	5220
gcggtcgggc	tgaacggggg	gttcgtgcac	acagcccagc	ttggagcgaa	cgacctacac	5280
cgaactgaga	tacctacagc	gtgagctatg	agaaagcgcc	acgcttcccg	aagggagaaa	5340
ggcggacagg	tatccggtaa	gcggcagggt	cggaacagga	gagcgcacga	gggagcttcc	5400
agggggaaac	gcctgggtatc	tttatagtcc	tgctgggttt	cgccacctct	gacttgagcg	5460
tcgatttttg	tgatgctcgt	cagggggggc	gagcctatgg	aaaaacgcca	gcaacgcggc	5520
cttttttacgg	ttcctggcct	tttgctggcc	ttttgctcac	atg		5563

<210> 3
 <211> 47
 <212> DNA
 <213> Artificial

<223> Primer VHHA1

<400> 3
 ctatgcggcc cagccggcca tggctcaggt gcagctggtg gactctt

47

<210> 4
 <211> 21
 <212> DNA
 <213> Artificial

<223> Primer GEN III-Rev

<400> 4

accctcatag ttagcgtaac g

21

<210> 5

<211> 44

<212> DNA

<213> Artificial

<223> Primer Linker-A48-VamyA

<400> 5

ggcgggtccga ctgctaactc tggacaggtg cagctgggtgg agtc

44

<210> 6

<211> 30

<212> DNA

<213> Artificial

<223> Primer Vamy-Not

<400> 6

gagtcattct gcggccgctg aggagacggt

30

<210> 7

<211> 60

<212> DNA

<213> Artificial

<223> Primer Linker-A48

<400> 7

accccgctctc acaactccca ccaggttcca tccgcaggcg gtccgactgc taactctgga

60

<210> 8

<211> 37

<212> DNA

<213> Artificial

<223> Primer Linker -A48-Vamy-eag1

<400> 8

attactcgcc ggccggtacc ccgtctcaca actccca

37

<210> 9

<211> 33

<212> DNA

<213> Artificial

<223> Primer VL1

<400> 9

gagtcattct agaggagcct tttttttgga gat

33

<210> 10
<211> 26
<212> DNA
<213> Artificial

<223> Primer VL2

<400> 10
ctgagatgag tttttgttct gcggcc

26